

Consumer Product Safety Commission

§ 1211.5

(a) Serves a residential building of one to four single family units;

(b) Is rated 600 volts or less; and

(c) Is intended to be employed in ordinary locations in accordance with the National Electrical Code, NFPA 70, 1993 edition. This incorporation by reference was approved by the Director of the Federal Register in accordance with U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, Mass. 02269-9101, tel. 1-800-344-3555. Copies may be inspected at the Consumer Product Safety Commission, Office of the Secretary, 4330 East West Highway, Bethesda, Maryland or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

[57 FR 60455, Dec. 21, 1992, as amended at 62 FR 46667, Sept. 4, 1997]

§ 1211.3 Units of measurement.

If a value for measurement as given in these requirements is followed by an equivalent value in other units, in parentheses, the second value may be only approximate. The first stated value is the requirement.

§ 1211.4 General requirements for protection against risk of injury.

(a) If an automatically reset protective device is employed, automatic restarting of a motor shall not result in a risk of injury to persons.

(b) A residential garage door operator is considered to comply with the requirement in paragraph (a) of this section if some means is provided to prevent the motor from restarting when the protector closes.

(c) An electronic or solid-state circuit that performs a back-up, limiting, or other function intended to reduce the risk of fire, electric shock, or injury to persons, including entrapment protection circuits, shall comply with the requirements in the Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 991, 1st ed., dated July 19, 1991, including environmental and stress tests appropriate to the intended usage of the end-product. This incorporation by reference was approved by the Director of the Federal Register in accordance with U.S.C. 552(a) and 1 CFR part 51. Copies

may be obtained from Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, Ill. 60062-2096. Copies may be inspected at the Consumer Product Safety Commission, Office of the Secretary, 4330 East West Highway, Bethesda, Maryland or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

[57 FR 60455, Dec. 21, 1992, as amended at 62 FR 46667, Sept. 4, 1997]

§ 1211.5 General testing parameters.

(a) The following test parameters are to be used in the investigation of the circuit covered by § 1211.4(c) for compliance with the Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 991, 1st ed., dated July 19, 1991, as incorporated by reference in paragraph (b)(3) of this section:

(1) Electrical supervision of critical components is acceptable if it results in an operator being inoperative with respect to downward movement of the door.

(2) A field strength of 3 volts per meter is to be used for the Radiated EMI Test.

(3) The Composite Operational and Cycling Test is to be used for 14 days at temperature extremes of minus 35 °Celsius (minus 31 °F) and 70 °C (158 °F).

(4) Exposure Class H5 is to be used for the Humidity Test.

(5) A vibration level of 5g is to be used for the Vibration Test.

(6) If a Computational Investigation is conducted, p shall not be greater than 6 failures/10⁶ hours for the entire system. For external entrapment protection devices that are sold separately, p shall not be greater than 0 failures/10⁶ hours. The Operational Test is to be conducted for 14 days.

(7) If the Demonstrated Method test is conducted, the multiplier is to be based on the continuous usage level, and a minimum of 24 units for a minimum of 24 hours per unit are to be tested.

(8) The Endurance test is to be conducted concurrently with the Operational test. The control shall perform its intended function while being conditioned for fourteen days in an ambient air temperature of 60 °C (140 °F), or 10 °C (18 °F) greater than the operating